

## ROANOKE RIVER BASIN

## 02053800 SOUTH FORK ROANOKE RIVER NEAR SHAWSVILLE, VA

**LOCATION.**--Lat 37°08'28", long 80°15'55", (corrected), Montgomery County, Hydrologic Unit 03010101, on right bank 95 ft downstream from bridge on State Highway 637, 0.3 mi downstream from Georges Run, 1.3 mi downstream from Elliott Creek, and 2.0 mi southwest of Shawsville.

**DRAINAGE AREA.**--110 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1960 to current year.

**REVISED RECORDS.**--WSP 2104: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 1,361.87 ft above sea level. Prior to Aug. 26, 1974, water-stage recorder, and Aug. 26, 1974, to July 24, 1975, nonrecording gage at site 95 ft upstream at same datum.

**REMARKS.**--Records good except those for period of no gage-height record, Oct. 1-13, and periods with ice effect, Dec. 24, 25, and Jan. 22 to Feb. 3, which are fair. Virginia Department of Emergency Services gage-height radio transmitter at station. Maximum discharge, 14,200 ft<sup>3</sup>/s, from rating curve extended above 3,700 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location by the Virginia Department of Environmental Quality - Water Division.

**COOPERATION.**--Records were provided by the Virginia Department of Environmental Quality - Water Division.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Sept. 30, 1959, reached a stage of 9.89 ft, from information by local resident.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr 18	0230	*1,190	*3.23	No other peak greater than base discharge.			

Minimum discharge, 21 ft<sup>3</sup>/s, Aug. 22-27.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e110	35	39	42	e43	68	67	108	39	45	45	146
2	e78	82	38	41	e44	66	65	103	36	36	53	120
3	e62	94	38	40	e41	62	75	93	34	32	53	146
4	e53	59	37	40	46	61	150	86	33	34	50	126
5	e55	51	36	45	45	60	138	83	36	45	48	221
6	e48	47	38	38	42	57	119	88	52	43	38	149
7	e45	45	37	37	43	54	102	79	41	33	33	93
8	e42	42	35	36	45	53	97	74	34	30	31	69
9	e40	41	34	46	46	52	93	70	32	28	30	56
10	e52	40	42	152	53	51	80	66	30	26	53	47
11	e56	39	56	173	65	61	74	62	28	27	37	41
12	e47	39	44	121	91	90	72	61	27	38	30	37
13	e42	37	45	96	79	70	67	58	27	36	28	34
14	41	37	169	78	108	63	68	54	37	31	26	32
15	39	36	173	66	115	61	72	52	59	29	25	32
16	37	35	118	63	101	61	71	50	62	27	24	29
17	37	34	89	59	88	78	256	49	49	27	23	27
18	38	34	74	55	196	65	986	49	38	24	24	27
19	37	33	65	53	338	61	492	47	35	28	25	99
20	49	33	67	56	248	292	293	45	40	45	23	58
21	53	32	67	45	176	631	213	46	35	29	22	40
22	43	34	64	e40	137	333	166	78	32	26	22	34
23	41	34	58	e35	114	214	138	53	30	40	21	35
24	39	33	e54	e41	100	162	122	48	27	78	21	33
25	37	33	e48	e37	90	133	173	49	26	57	22	42
26	37	63	50	e34	82	113	185	46	25	43	23	79
27	36	72	51	e31	79	102	165	42	27	36	22	53
28	35	51	48	e29	84	95	152	51	50	32	100	45
29	35	45	46	e33	72	85	141	50	178	47	43	40
30	34	42	44	e38	---	78	122	47	68	70	33	37
31	34	---	44	e45	---	72	---	41	---	47	54	---
TOTAL	1432	1332	1848	1745	2811	3504	5014	1928	1267	1169	1082	2027
MEAN	46.2	44.4	59.6	56.3	96.9	113	167	62.2	42.2	37.7	34.9	67.6
MAX	110	94	173	173	338	631	986	108	178	78	100	221
MIN	34	32	34	29	41	51	65	41	25	24	21	27
CFSM	.42	.40	.54	.51	.88	1.03	1.52	.57	.38	.34	.32	.61
IN.	.48	.45	.62	.59	.95	1.18	1.70	.65	.43	.40	.37	.69

## 02053800 SOUTH FORK ROANOKE RIVER NEAR SHAWSVILLE, VA--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	72.3	90.0	98.7	137	167	210	185	134	99.8	57.7	53.1	63.9
MAX	294	407	232	299	523	571	750	334	483	205	174	347
(WY)	1972	1986	1973	1996	1998	1993	1987	1978	1972	1972	1994	1989
MIN	21.4	24.4	22.1	18.9	62.7	55.6	51.0	50.7	24.0	20.6	17.4	17.8
(WY)	1992	1982	1966	1966	1999	1981	1966	1963	1999	1966	1963	1968

## SUMMARY STATISTICS

## FOR 1999 CALENDAR YEAR

## FOR 2000 WATER YEAR

## WATER YEARS 1961 - 2000

ANNUAL TOTAL	22907	25159	
ANNUAL MEAN	62.8	68.7	114
HIGHEST ANNUAL MEAN			205
LOWEST ANNUAL MEAN			46.5
HIGHEST DAILY MEAN	1350	aSep 5	6840
LOWEST DAILY MEAN	11	Aug 19	7.5
ANNUAL SEVEN-DAY MINIMUM	13	Aug 13	8.9
INSTANTANEOUS PEAK FLOW		1190	14200
INSTANTANEOUS PEAK STAGE		3.23	c11.12
INSTANTANEOUS LOW FLOW		21	dAug 22
ANNUAL RUNOFF (CFSM)	.57	.62	1.03
ANNUAL RUNOFF (INCHES)	7.75	8.51	14.03
10 PERCENT EXCEEDS	113	122	218
50 PERCENT EXCEEDS	44	47	70
90 PERCENT EXCEEDS	19	30	28

a Also Sept. 6, 1999.

b Also Aug. 24, 2000.

c From high-water mark in well.

d Also Aug. 23-27, 2000.

e Estimated.

f Also July 28, 29, 1966.

